



cost_needs_24sept06.doc

updated DCB Report - Vancouver 19july06

Peter H. Garbincius

These are elements that are still needed to complete our cost estimate. Yes, I realize that there have been changes. We need your estimate based on your most up to date design, and revised estimates when changes are approved by the CCB. Main areas needing written documentation include: WBS Dictionary and Basis of Estimate, requirements, specifications, and assumptions, quantity pricing, $\pm\%$ uncertainties in estimates, cost correlations, institutional labor (see list), R&D costs, reality checks, and surprises. Cost Estimate Reviews will be held at Valencia.



(from Vancouver) Meetings with 3 Cost Engineers)

What we need:

Your cost estimate in WBS format

(everyone sent to 3CEs but Magnets and Power Supplies)

What assumptions did you use?

How did you get this number? (Basis of Estimate)

What reviews and cross-checks did you perform?

What was the average cost factor for Production Quantities ?

Did you have any surprises in your estimate? Up or down?

Are they understood?

Were you lacking in specifications or requirements?

Did requirements substantially increase cost or complexity?

How did you optimize cost vs. performance?

Is a parametric model of the cost estimate available?

"That item seems expensive, did you consider alternatives?"

What "sanity checks"

or comparisons to costs of other projects were made?



still need by September 15

- To complete the Cost Estimates including:
(we already have) Cost Estimates in WBS form,
WBS Dictionary & Basis of Estimate
- Cost Engineers will be checking for:
50%-50% point for probable cost distribution,
upper and lower limit of cost estimates,
correlated cost factors, like how much steel,
copper, commercial labor, power, etc.
- add NO CONTINGENCY

- Checks between AS and TS/GS for omissions, duplications, consistency
- Don't forget testing (and facilities), lab space, infrastructure, warehousing, etc.
- ***Institutional in-house labor (hours)*** for construction phase
- ***R&D and proof-of-principle costs & labor***
- Tom Himel has provided a model of
Commissioning costs & in-house labor
Operating costs per year & in-house labor



Missing Labor Estimates (added 24sept06)

- Most groups have sent, those still missing:
- Directorate, Administration, Safety, etc.
- Institutional labor estimates (person-hrs) for Cryogenics, Dumps & Collimators, Vacuum, Magnets & Power Supplies
- Area-specific institutional labor estimates for Damping Rings, RTML, Main Linac, BDS, and Experimental Facility



Requested Deadline for all this is

Sunday, October 15

- At Valencia, the RDR Management Team will hold a series of cost estimate reviews of about ½ day duration for each of the Technical and Global System Groups
- Representatives of Area System Groups will participate in appropriate GS and TS reviews
- The topics requested in this note will form much of the content of these reviews.
- Please forward any questions to me,

Thank you,

Peter